

BEC

SHALLOW SOIL REMOVAL WORKPLAN

Prepared for:

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Site Name/Location:

206 & 210 W. Slauson Avenue
Los Angeles, CA 90003

November 15, 2019

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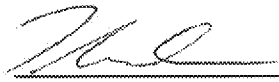
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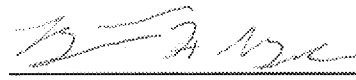
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1.0

INTRODUCTION

At the request of Michael Lebow, as legal advisor to Edward, Don, Scott and Paul Devore (collectively referred to as the “Devores”), Bowyer Environmental Consulting, Inc. (BEC) has prepared this Revised Work Plan to implement a shallow soil Removal Action (RA) at and near the property owned by the Devores. The property owned by the Devores is located at 206 and 210 W. Slauson Avenue in Los Angeles, California (Devores Property) as shown on Figure 1. The RA will also include soil removal at the neighboring property located directly west of the Devores Property, at 216 W. Slauson Avenue.

This Work Plan revises and replaces the previous version of the Work Plan, which was submitted by BEC to the United States Environmental Protection Agency Emergency Response Program (USEPA-ERP) and Los Angeles Regional Water Quality Control Board (RWQCB) on September 10, 2019. The revised version is based on comments received from the USEPA-ERP on September 17, 2019, and from the RWQCB on September 23, 2019.

1.1

OBJECTIVES

The primary objectives of the RA are to:

- Remove soil within the upper 10 feet that contains concentrations in excess of direct exposure risk-screening criteria.
- Limit the potential for gasoline-related compounds in soil from becoming mobilized during future runoff events.

The planned RA is intended to meet the remaining requirements of the USEPA-ERP, which is the lead agency associated with the emergency response. The work is also being done in compliance with requirements from the RWQCB. It is anticipated that following the completion of the RA and based on the post-RA confirmation sampling results, the USEPA-ERP will determine that no further work is required in association with the emergency response effort. In addition, it is anticipated that the RWQCB will issue a No Further Action Letter for shallow soil (Shallow Soil NFA), based on the continued use of the Devores Property for commercial/industrial purposes and the neighboring property (216 W. Slauson) for residential purposes. Following the issuance of the Shallow

Soil NFA, the Devores shall continue to address soil vapor conditions, as necessary to meet the requirements of the RWQCB.

1.2 WORKPLAN ORGANIZATION

This Workplan is organized into the following primary sections:

- Section 1 summarizes the objectives and organizational framework for this Workplan;
- Section 2 provides a summary of the Devores Property setting, a summary of the emergency response activities conducted to date and a summary of the environmental investigation results;
- Section 3 describes the scope of the field program;
- Section 4 presents a proposed implementation schedule;
- Section 5 describes the limitations associated with this document; and
- Section 6 presents a list of referenced documents.

2.0

SITE BACKGROUND

The Devores Property consists of approximately 0.26-acres of land located approximately three miles south of downtown Los Angeles and 1,000 feet east of the Harbor (I-110) Freeway. Slauson Avenue is located directly north of Devores Property and a seldom used Burlington Northern Santa Fe Railroad right-of-way is located on the north side of Slauson Avenue. Adjacent land west, east and south of the property is used for single and multi-family residential purposes. BEC's understanding of current nearby property use is depicted on Figure 2.

The Devores Property includes two parcels – Assessor's Identification Number (AIN) 6005-009-04 and 6005-009-05 for 210 and 206 W. Slauson Avenue, respectively. According to the Los Angeles County Tax Assessors Office (<https://portal.assessor.lacounty.gov>), 210 Slauson is zoned for a single family residence, and is currently developed with an asphalt-paved parking lot and a billboard structure in the northwest corner of the property. 206 Slauson is zoned as "Vacant Commercial" and is currently developed with a metal shed structure in the southern area of the property.

Based on available city directories (BEC, April 29, 2019), the Devores Property has been associated with what appears to be private entities and small business since at least 1924. The current lease at 210 W. Slauson Parcel A (which is shown as 210 Slauson on Figure 2) is held by Karlen Galstyan, doing business as (dba) KG Road Services. The current lease at 206 W. Slauson Parcel B (which is shown as 206 Slauson on Figure 2) is held by Byung Chun Choung.

2.1

GEOLOGY/HYDROGEOLOGY

The Devores Property is situated within the Coastal Plain of the Los Angeles Basin. The Los Angeles Basin is bounded by the Santa Ana Mountains to the east, the Santa Monica Mountains and Puente Hills to the north, and the Pacific Ocean to west and south. The general area is underlain (at depth) by the Lakewood Formation. This formation is comprised of marine and continental sedimentary deposits that are overlain by Pleistocene and Recent Age alluvium. According to available regional hydrogeologic reports (California Department of Water Resources, June 1961), the top of the Exposition Aquifer is at a depth of approximately 50 feet below ground surface (bgs).

Based on an investigation performed at a former Shell service station located approximately 350 feet west of the Property (306 W. Slauson Avenue), as of 2015 the depth to water in the area was approximately 105 feet and groundwater flowed towards the north (Wayne Perry, 2016). The information from this nearby recent investigation is believed to be representative of current conditions in the area of the Devores Property.

2.2 ***DESCRIPTION OF RELEASE AND PREVIOUS EMERGENCY RESPONSE ACTIVITIES***

According to available media reports, the Los Angeles City Fire Department (LAFD) responded to a call that reported the smell of gas near the Property at approximately 7:45 AM on March 17th, 2019. According to an investigation performed by the LAFD, sparks from a rotary saw that an LAFD firefighter used to cut the lock at the 210 W. Slauson caused vapors to ignite from a potentially leaking 9,000-gallon gasoline tanker. Some unknown volume of product must have entered the storm drain located along Slauson avenue as it is reported that storm drain lids were lifted, presumably due to blast pressure, at some point during the incident. The subsequent fire damaged the original tanker, two trailers and a tracker that were parked at 210 Slauson, as well as the metal shed structure and related equipment at 206 Slauson. A neighboring residential home located due west of the property (216 W. Slauson) caught fire and was allegedly also damaged.

The Devores had no prior knowledge of the presence of the gasoline tanker. The 210 W. Slauson property was leased at the time to Karlen Galstyan dba KG Road Services. According to the lease, the 210 W. Slauson was to be used for truck and vehicle storage and no other use. In addition, the lease states "Under no circumstances shall lessee store any toxic chemical on the Premises."

The City of Los Angeles contacted Clean Harbors to assist in the emergency response activities. Clean Harbors blocked downstream storm drains and assisted in the cleanup and containerization of the waste once the fire was extinguished. According to information obtained from Clean Harbors personnel, the product from the container and fire suppressant water flowed toward the northwest from the tanker which was positioned in the southeastern area of the 210 W. Slauson property. The liquid migrated across the existing asphalt, and onto bare soil along the eastern boundary of the adjacent property (216 Slauson).

Clean Harbors vacuumed up a total of approximately 1,600 gallons of liquid during the initial response, and containerized it in a frac tank on the 210 W. Slauson property. In addition, Clean Harbors applied absorbent material to the ground to collect additional free liquids. The absorbent material was then collected along with miscellaneous debris and placed into eight 55-gallon drums and one 20-cubic yard bin. Additionally, a tractor trailer that was parked at the 210 W. Slauson property leaked hydraulic fluid, approximately 35 gallons of which was placed into a 55-gallon drum. Clean Harbors decontaminated off-site storm drains and set up sand bag barriers to limit the flow of released material during future storm events. Clean Harbors also covered the eastern portion of the property at 216 Slauson area where the product had migrated onto bare soil with visqueen plastic and steam cleaned the storm drains under the direction of the USEPA-ERP.

The solid and liquid materials recovered during the initial emergency response were sampled and analyzed for volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH) – gasoline range organics (GRO). Composite samples were also collected from the 20-cubic yard bin and from the 55-gallon drums and analyzed for TPH – diesel range organics (DRO), TPH motor oil-range organics (ORO), CAM metals, and polychlorinated hydrocarbons (PCBs). Results indicated that the containerized solid material had the following concentrations of these constituents:

- Benzene at up to 15 milligrams per kilogram (mg/kg);
- Toluene at up to 600 mg/kg;
- Ethylbenzene at up to 230 mg/kg;
- Total xylenes at up to 2,560 mg/kg;
- GRO at up to 14,000 mg/kg;
- DRO up to 33,000 mg/kg;
- ORO up to 35,000 mg/kg; and
- Metals and PCBs were either non-detect or present at concentrations that did not exceed hazardous or PCB-containing waste criteria.

The containerized water also exhibited detectable concentrations of these compounds (BEC, April 29, 2019). These results were consistent with records from the emergency response activities and support the conclusion that stored gasoline was released, residuals of which were present in the containerized solids and liquids. There also appears to be a minor amount of diesel and motor oil range organics solids, which may be related to releases from the engines of vehicles that were damaged during the fire. Other than VOCs that are typically related to petroleum hydrocarbons, no other compounds were present at levels of concern within the containerized samples.

2.3 ENVIRONMENTAL INVESTIGATION

An environmental investigation was performed by BEC between June 17 and July 19, 2019, in order to define the magnitude and vertical/lateral limits of gasoline and other petroleum hydrocarbon impacts to soil and soil gas due to the recent release of gasoline, associated fire and follow up emergency response activities. This work consisted of the following tasks:

- Drilling and sampling nineteen (19) soil borings (S-1 through S-10, SV-1 through SV-7, SV-2A, and SV-3A) and the collection/analysis of soil samples from 0.5, 2.5 and 5.0 feet bgs;
- Drilling and sampling seven (7) of the 19 soil borings (SV-1 through SV-7) to a total depth of 15.0 feet bgs and the collection/analysis of soil samples from 10.0 and 15.0 feet;
- Drilling and sampling two (2) of the 19 soil borings (SV-2A and SV-3A) to a total depth of 60.0 feet bgs and the collection/analysis of soil samples at five-foot intervals to a total depth of 60.0 feet;
- Installation, sampling and analysis of soil vapor probes at seven (7) locations (SV-1 through SV-7) at depths of 5.0 and 15.0 feet bgs; and
- Installation, sampling and analysis of soil vapor probes at two (2) locations (SV-2A and SV-3A) at depths of 30 and 50 feet bgs.

The collected soil samples were analyzed for VOCs via United States Environmental Protection Agency (EPA) Method 8260B, as well as GRO, DRO, and ORO by EPA Method 8015M. Soil vapor samples were also analyzed for VOCs and GRO by similar methods. The soil and soil vapor sampling locations are shown on Figure 3. The results are detailed in the

Environmental Investigation Report (BEC, August 8, 2019) and are summarized below:

- Shallow soil along the property boundary of 210 and 216 Slauson (SV-2, S-3, SV-3 and S-6) has been impacted by gasoline and related VOCs at concentrations that exceed human health screening criteria. The vertical extent of these impacts varies from 5.0 to greater than 10.0 feet bgs. The horizontal impact has been defined to the north, east and south. Further investigation to the west was not possible due to the presence of the existing structure. The locations of impacted soil within the top 10.0 feet is presented on Figure 4.
- A separate, smaller area of soil impacted with gasoline and related VOCs is present in the central eastern portion of the 210 W. Slauson property (SV-5), at the former reported location of the gasoline tanker. The vertical extent of impacts in this area appear to be limited to less than 5.0 feet and the horizontal extent also appears to be limited based on the available data. The location of this area is presented on Figure 4.
- Gasoline-related compounds have diffused in the vapor phase over a wider area to the north and south and to greater depths (up to 50 feet) than the absorbed-phase compounds present in shallow soil. The presence of a clay layer at depths of 15 to 23-28 feet likely slowed the vertical movement of absorbed gasoline constituents.

In addition, the investigation report (BEC, August 8, 2019) recommended that impacted shallow soil above 10.0 feet (as shown on Figure 4) should be excavated and removed, to prevent potential future mobilization of gasoline-related compounds in stormwater, and to limit future human health risks associated with direct contact with impacted soil.

The primary objective of this effort is to remove soil within the upper 10.0 feet that represents a potential risk of direct exposure to future residents, commercial/industrial workers and/or construction workers. To accomplish this, soil that exceeds the Department of Toxic Substances Control (DTSC) Screening Levels (SLs) and EPA Regional Screening Levels (RSLs) for residential land use will be deemed to be in excess of the site-specific clean-up goals (Target Clean-Up Levels). Based on these criteria, the chemical-specific Target Clean-Up Levels for the compounds of concern observed in the shallow soil are:

- Benzene – 330 micrograms per kilogram ($\mu\text{g}/\text{kg}$);
- Ethylbenzene – 5,800 $\mu\text{g}/\text{kg}$;
- Naphthalene – 2,000 $\mu\text{g}/\text{kg}$;
- 1,2,4-Trimethylbenzene – 300,000 $\mu\text{g}/\text{kg}$;
- 1,3,5-Trimethylbenzene – 270,000 $\mu\text{g}/\text{kg}$;
- m,p-Xylene – 550,000 $\mu\text{g}/\text{kg}$;
- o-Xylene – 650,000 $\mu\text{g}/\text{kg}$;
- GRO – 85 mg/kg; and
- DRO – 96 mg/kg.

During the recent subsurface investigation, only GRO and benzene were observed above the Target Clean-Up Levels. The area impacted with benzene and GRO in excess of the Target Clean-Up Levels within the top 10.0 feet of soil, as well as the planned excavation area, are presented on Figure 4.

The primary tasks to be performed in association with this work are outlined as follows:

- Planning, Permitting and Support Activities;
- Soil Excavation Program;

- Air and Dust Monitoring Program;
- Storm Water Management and Erosion Control;
- Crawl Space Vapor Testing; and
- Completion Report.

Details regarding the methods and procedures to be followed during the implementation of these tasks are summarized in the following subsections.

3.1 *PLANNING, PERMITTING AND SUPPORT ACTIVITIES*

Prior to implementing the field work, BEC shall procure permits from jurisdictional agencies as required. At this time, BEC anticipates a Rule 1166 VOC Soil Mitigation Plan will be obtained from the South Coast Air Quality Management District (SCAQMD), and two grading permits (one for 210 and one for 216 W. Slauson) will be obtained from the City of Los Angeles Department of Building and Safety (LADBS).

A project-specific Health and Safety Plan (HASP) will be developed and used by all personnel during field services. BEC anticipates that an Occupational Safety and Health Administration (OSHA) Level D Personal Protective Equipment (PPE) work uniform consisting of hard hats, safety glasses, protective gloves, and steel-toed boots will be required by all personnel in the work area. All field activities will be conducted under the supervision of a California-licensed Professional Geologist. Air monitoring will be performed during the excavation, as described in Section 3.3. If necessary based on the air monitoring, OSHA Level C may be employed.

BEC will coordinate site access prior to beginning any excavation or vapor testing activities specified in this workplan. BEC will also contact Underground Service Alert (USA) to arrange for underground utility markings at least 2 business days prior to beginning excavation activities. For this Workplan, it is assumed that all above-ground structures (including the residence located at 216 W. Slauson) will be removed prior to excavation, and that the surface will be either bare asphalt or bare soil.

3.2

SOIL EXCAVATION PROGRAM

The soil excavation program will be conducted in two discrete phases, in order to facilitate the work in a safe and orderly fashion and to minimize the potential impact to current users/owners of the properties and the public in general. The initial phase of excavation (Phase One) will involve the excavation, confirmation sampling and backfilling of the larger area of impact located along the boundary of 210 W. Slauson and 216 W. Slauson. This area is referred to as AOC-1. The location of AOC-1 is shown on Figure 5. The second phase of excavation (Phase Two) will involve the excavation, confirmation sampling and backfilling of the smaller area of impact located near the eastern side of 210 W. Slauson. This area is referred to as AOC-2. The location of AOC-2 is shown on Figure 6.

All excavation activities will be performed with standard excavation equipment (backhoe and loader) and per the safety precautions as defined in the HASP. All equipment will be decontaminated using a high-pressure washer prior to work commencement, and again following the completion of excavation activities. Asphalt will be broken, removed, and stockpiled for proper disposal prior to excavating soil. In order to allow access to the excavation to confirm backfill to a relative density of 95%, the excavation walls will be sloped so that they are not steeper than one horizontal to one vertical (1H:1V) foot in all directions.

The confirmation sampling results will be compared to the Target Clean-Up Levels. Additional excavations will be implemented if soil at depths of less than 10 feet bgs contains COCs in excess of the Target Clean-Up Levels. Prior to backfilling any excavation, the analytical results will be summarized on a series of figures and tables that will be provided to the EPA-ERP and RWQCB for review and concurrence. Backfilling of excavations will only occur once the EPA-ERP and RWQCB have concurred that the clean-up objectives for the top 10 feet of soil have been achieved.

Clean imported fill will be used to backfill excavations from total depths to current surface grade. Confirmation density testing will be performed to demonstrate that the backfilled soil is compacted to a minimum density of 95%.

3.2.1

Phase One – Shallow Soil Excavation at AOC-1

Phase One of the field program will involve the excavation, sampling and backfilling of AOC-1. The planned total depth of this excavation is

between approximately 4.0 and 10 feet bgs, as shown on Figure 5. It is estimated that approximately 306 cubic yards of in-situ soil are anticipated to be removed from AOC-1 during this phase. The excavated soil will be either direct-loaded into end dumps or stockpiled and covered with visqueen on Site pending loading transport and off-site disposal to a designated non-hazardous off-site waste disposal facility. Documentation regarding the soil disposal will be included in the final Completion Report.

Following the Phase One excavation, a total of thirty-one (31) confirmation samples will be collected from AOC-1. The approximate locations of the confirmation samples are shown on Figure 5. Samples will be collected from the excavation sidewalls at approximate 10 linear foot intervals, and from the excavation floor once per every 100 square feet. The soil samples will be collected using Terracore® sampling techniques (EPA Method 5035) and in glass jars and analyzed for VOCs via EPA Method 8260B and TPH by EPA Method 8015M.

Upon receipt of the initial analytical test results samples, the data will be summarized and presented to the EPA-ERP and RWQCB. It is possible that additional rounds of excavation and sampling will be required to reach the stated Target Clean-Up Levels in the upper 10.0 feet of soil. Once the final excavations are complete, and the EPA-ERP and RWQCB are in concurrence that the Target Clean-Up Levels have been achieved, AOC-1 will be backfilled with clean imported soil. The backfill will be placed in 2.0-foot lifts from the bottom up. After placing each lift, the soil will be compacted, and confirmation density tests will be performed to document that the compacted lift has a minimum test density of 95%.

3.2.2 *Phase Two - Shallow Soil Excavation at AOC-2*

Phase Two of the field program will involve the excavation, sampling and backfilling of AOC-2. The planned total depth of this excavation is 4.0 feet and the lateral extent is shown on Figure 6. It is estimated that approximately 30 cubic yards of in-situ soil will be removed from the excavation at AOC-2. The excavated soil will be either direct-loaded into end dumps or stockpiled and covered with visqueen on-Site, pending transport and off-site disposal at a designated non-hazardous waste disposal facility. Documentation regarding the soil disposal will be included in the final Completion Report.

Following the excavation, a total of seven (7) confirmation samples will be collected from AOC-2. The approximate locations of the confirmation

samples are shown on Figure 6. Sample frequency, method of collection and analytical testing of these samples will be identical to that described for Phase One of the excavation program (Section 3.2.1).

Based on the results of confirmation sampling at AOC-2, it is possible that additional rounds of excavation and sampling will be required to reach the stated Target Clean-Up Levels in the upper 10.0 feet of soil. Once the final excavations are complete, and the EPA-ERP and RWQCB are in concurrence that the Target Clean-Up Levels have been achieved, AOC-2 will be backfilled as described for Phase One of the excavation program (Section 3.2.1).

3.3 *AIR QUALITY AND DUST MONITORING*

BEC will conduct environmental and dust monitoring procedures during all major earthwork conducted in association with the planned excavation. These dust and monitoring procedures will be done in compliance with:

- EPA-ERP Requirements for perimeter and excavation area monitoring for dust, bulk VOCs and benzene;
- SCAQMD Site-Specific Rule 1166 Soil Mitigation Plan; and
- SCAQMD Rule 402 Nuisance (odor control) and Rule 403 Fugitive Dust requirements.

The scope of these efforts is described in the following subsections.

3.3.1 *EPA-ERP Required Monitoring Program*

The action levels associated with this monitoring program will be based on Occupational Safety and Health Administration (OSHA)-approved exposure levels for site workers per 40 CFR 300.150 and 20 CFR Part 1910. SCAQMD Rule 1166, Rule 402 and Rule 403 will also be implemented at this Site. The relevant action levels and appropriate responses are described in Table 1. An example of the locations of the monitoring stations and a general descriptions of air monitoring procedures are presented on Figure 7. Further details on the SCAQMD monitoring requirements are provided in the following subsections.

This EPA-ERP directed air monitoring program will consist of dust, VOC and benzene monitoring for workers and at the perimeter of the site in

three separate locations. The excavation monitoring will initially consist of the collection of VOC data and benzene specific data at the face of the excavated soil and in the workers' breathing zones on 15-minute increments for the first day of excavation. VOC readings will be collected using an organic vapor analyzer (OVA), such as a photoionization detector (PID). The monitoring will take place at the face of the active excavation at a distance of no more than 3 inches from the freshly excavated soil. In addition, an UltraRAE 3000 with a RAE-Sep benzene tube will be utilized to monitor the breathing zone for benzene concentrations. The VOC and benzene data collected during this interval will be utilized to estimate an average benzene fraction associated with the bulk VOC data. Following the initial day, bulk VOC levels will continue to be monitored at the face of the excavation and in the workers' breathing zones on 15-minute increments. Subsequent benzene concentrations will either continue to be collected directly as described above or if appropriate will be calculated as a percentage of bulk VOCs based on the initial day of excavation.

Bulk VOC, benzene and dust levels will also be monitored in 15-minute increments upwind, downwind, and between the excavation and the nearest residence. A dust monitoring station will be set up at each of these three locations. All three units will be calibrated using the zero-filter at the beginning of each work day and set to log measurements at fifteen-minute intervals. Each of the three monitoring stations will also include a PID to monitor VOC concentrations in the breathing zone. A weather station will be set up to monitor wind direction and speed. The following conditions will require the implementation of mitigation measures:

- Particulate Matter 10 (PM₁₀) – This refers to particulates that are 10 micrometers and smaller in size. Downwind concentrations should not exceed 50 micrograms per cubic meter (µg/m³) above the upwind monitor concentrations. In addition, concentrations of PM₁₀ at the monitoring station near the closest residence shall not exceed 50 µg/m³ above the upwind monitor.
- Permissible Exposure Limit (PEL) for Gasoline – The state and Federal PEL for gasoline is 300 parts per million (ppm) based on an 8-hour time weighted average concentration. This concentration will be measured with a PID and measured VOC concentrations will be assumed to 100% gasoline. Downwind concentrations and concentrations at the closest residence shall not exceed 300 ppm based on these measurements.

- PEL for Benzene - The state PEL for benzene is 100 parts per billion (ppb) based on an 8-hour time weighted average concentration. This concentration will be measured either with an UltraRAE 3000 with a RAE-Sep benzene tube, or as a percentage of the total VOC concentration measured with a PID. Downwind concentrations, and concentrations at the closest residence, shall not exceed 100 ppb based on these measurements.

If any of these criteria are exceeded, work will be temporarily halted and appropriate mitigation measures will be taken, likely consisting of the application of water or other VOC/dust suppressants. Work will only proceed once the monitoring demonstrates that the noted exceedance has been abated.

Data collected at the perimeter monitoring stations will log the data electronically. At the end of each day the perimeter data will be summarized and reported to the EPA-ERP. Exceedances and response actions will be documented. This summary information will be retained on file at the Site at all time and electronic data files will be retained and made available upon request.

3.3.2 *SCAQMD Site-Specific Rule 1166 Soil Mitigation Plan*

It is currently estimated that approximately 336 cubic yards of soil will be removed during the two planned excavation phases. Additional soil may also be excavated if warranted, based on confirmation sampling results. Given these factors, a Site-Specific Rule 1166 Contaminated Soil Mitigation Plan (SCAQMD Soil Mitigation Plan) has been developed and submitted to the SCAQMD for approval in advance of the excavation.

In compliance with Rule 1166 requirements, all excavated soil will be monitored at least once every 15 minutes using a PID. The monitoring will take place at the face of the active excavation, no more than 3 inches from the freshly excavated soil. Based on these readings, mitigation measures may be implemented if warranted. It is possible that concentrations of VOCs in excess of 1,000 ppm may be observed during the excavation of the impacted soil. Given this, it may be necessary to directly excavated soil into trucks, moistened with water, cover, and transported immediately off-site to a pre-approved treatment facility. In addition, if VOC concentrations in excess of 50 ppm (but less than 1,000 ppm) are observed, the soil will be segregated and covered with visqueen within 1 hour of excavation, and additional notifications to the SCAQMD Executive officer will be made. Other conditions association with the

Final SCAQMD-approved Site-Specific 1166 Soil Mitigation Plan will also be followed. Further information on these action levels and planned responses are provided in Table 2.

3.3.2 SCAQMD Rule 402 Nuisance (Odor Control) and Rule 403 Fugitive Dust

In addition to monitoring the excavation and loading activities, perimeter monitoring will be conducted to demonstrate compliance with Rule 402 Nuisance (Odor Control) and Rule 403 Fugitive Dust. In order to verify compliance, two identical dust monitors will be placed upwind and downwind on work area each day. All units will be calibrated using the zero-filter at the beginning of each work day and set to log measurements at fifteen-minute intervals. A weather station will be set up to monitor wind direction and speed. The following conditions will require a response under the SCAQMD permit:

- PM₁₀ – Downwind concentrations should not exceed 50 micrograms per cubic meter (µg/m³) above the upwind monitor concentrations, per Rule 403.
- Any odor emanating from the excavated soil which is noticeable at the perimeter of the site, per Rule 402.

If either of these conditions are present at the Site, work will be temporarily stopped, and dust/odor suppressant techniques will be used until the condition is no longer present.

The proposed layout is presented on Figure 7. The action levels for air monitoring and procedures to be followed are provided in Table 2.

3.4 STORMWATER MANAGEMENT AND EROSION CONTROL

A series of best management practices (BMPs) have and will continue to be put in place to mitigate erosion and sedimentation impacts to stormwater, should any rain event occur during the excavation program. The proposed BMPs for stormwater are presented on Figure 8. Preventative measures to be taken are as follows:

- All impacted bare soil will be covered with plastic visqueen. In addition, the excavations will be covered with plastic at the end of each workday.

- A double layer of sandbags has been placed across the northern boundary of the Site and any other gaps along the property boundary.
- An approximately 18-inch wide by 12-inch deep trench has been excavated across the front of the residence at 216 W Slauson and will be lined with plastic.
- The curb inlet on Slauson Avenue northwest of the excavation area will be covered using a drain guard and absorbent sock.

Should a rain event occur during soil excavations, additional measures will be taken as necessary to limit the potential for the off-site migration of impacted stormwater. These measures may include testing and or containment of water ponded in on-site excavations.

3.5 *CRAWL SPACE VAPOR TESTING*

Concurrent to the excavation program, vapor testing will be performed in the crawl spaces of the residences along the western side of the southern boundary of the 210 and 216 W. Slauson properties, at 5834-5836 Brentwood Street. This testing is being done in order to determine if benzene or GRO vapors are present within these nearby crawl spaces. If these compounds are found to be present, the observed concentrations will be compared to conservative screening criteria and if necessary, additional actions may be recommended.

In order to test the crawl spaces of the nearby residences at 5834-5836 Brentwood Street for potentially hazardous conditions, a multi-gas detector for confined spaces with a lower explosive limit (LEL) and oxygen (O₂) meter will be used within the crawl spaces of these residences. Following this initial screening, a PID and UltraRAE 3000 with a RAE-Sep benzene tube will be used to test the crawl spaces for benzene and total VOCs. Teflon extension tubing connected to the inlet of the instruments will be strapped to extension rods to allow for measurements to be collected from beneath the structure without having to enter into the confined space.

It is anticipated that the crawl space vapor testing will take place either during or shortly after soil excavations, depending on the availability of site access to the residences. The results of the testing will be included in the Completion Report.

A final Completion Report will be prepared after all phases of work are complete. The Completion Report will be submitted to the EPA and RWQCB for review and approval. Upon achieving the objectives of this RA, it is anticipated that the USEPA-ERP will issue a notice that requirements to protect the waters of the United States have been met and that the emergency response activities are complete. In addition, it is anticipated that the RWQCB will issue a Shallow Soil NFA, based on the continued use of the Devores Property for commercial/industrial purposes and the neighboring property (216 W. Slauson) for residential purposes. Following the issuance of the Shallow Soil NFA, the Devores shall continue to address soil vapor conditions, as necessary to meet the requirements of the RWQCB.

4.0

IMPLEMENTATION SCHEDULE

The implementation schedule is based in part of the completion of the demolition of the structure at 216 W. Slauson and the acquisition of any necessary permits from the City of Los Angeles and the SCAQMD. Field work will take approximately 15 working days and the final completion report will be prepared over an additional 30 working day period. Assuming that work begins on or before November 25, 2019, the draft completion report should be available on or before by January 13, 2020.

This Workplan was based partially on information supplied to BEC from outside sources and other information that is in the public domain. Documentation for the statements made in this Workplan is on file at BEC's offices in Long Beach, California, or available on the SWRCB's GeoTracker website at <http://geotracker.waterboards.ca.gov>. BEC makes no warranty as to the accuracy of statements made by others that may be contained in the Workplan, nor are any other warranties or guarantees, expressed or implied, included or intended by the Workplan, except that it has been prepared in accordance with the current generally accepted practices and standards consistent with the level of care and skill exercised under similar circumstances by other professional consultants or firms performing the same or similar services. Because the facts forming the basis for this Workplan are subject to professional interpretation, differing conclusions could be reached. BEC does not assume responsibility for the discovery and elimination of hazards that could possibly cause accidents, injuries, or damage. Compliance with submitted recommendations or suggestions does not assure elimination of hazards or the fulfillment of the client's obligation under local, state, or federal laws or any modifications or changes to such laws. It must be recognized that environmental investigations are inherently limited in the sense that conclusions are drawn, and recommendations developed from information obtained from limited research and subsurface investigation. All subsurface conditions were not field investigated as part of the services described in this Workplan. Additionally, the passage of time may result in a change in the environmental characteristics at this property and surrounding properties. This Workplan does not warrant against future operations or conditions, nor does this warrant operations or conditions present of a type or at a location not addressed in this Workplan. This Workplan is for the exclusive use of Devores. No other party shall have any right to use or rely on this Workplan or any related Workplan-related service provided by BEC without the prior written authorization of BEC. Any authorized third-party use of this Workplan shall be: subject to the terms and conditions governing the work in the Agreement between Devores and BEC; limited by the exceptions and limitations in this Workplan; and with the acknowledgment that actual conditions may change with time, and that hidden conditions may exist at the properties that were not discoverable within the client-authorized scope of the preparation of the Workplan. Any unauthorized release or misuse of this Workplan shall be without risk or liability to BEC. None of the work performed hereunder shall constitute or be represented as a legal

opinion of any kind or nature but may be considered a representation of findings based on the cited documents and information.

Bowyer Environmental Consulting (BEC), 2019a. *Investigation Workplan*, April 29.

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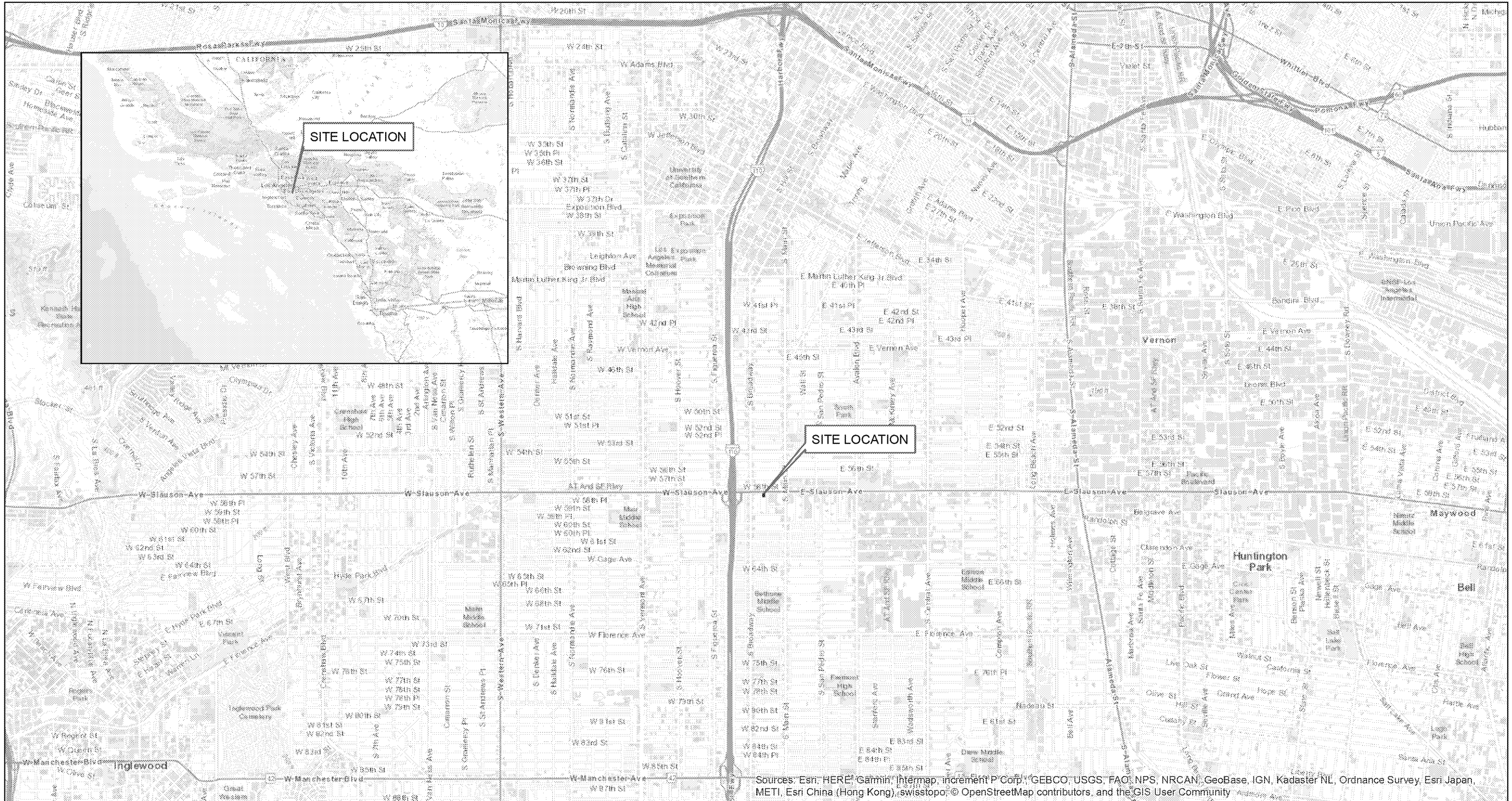
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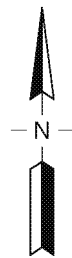
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Wayne Perry, Inc., 2016. *Groundwater Monitoring Status Report – Fourth Quarter 2015 – Former Shell Service Station – 306 W. Slauson Avenue*, January 12.

Figures



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community



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Miles



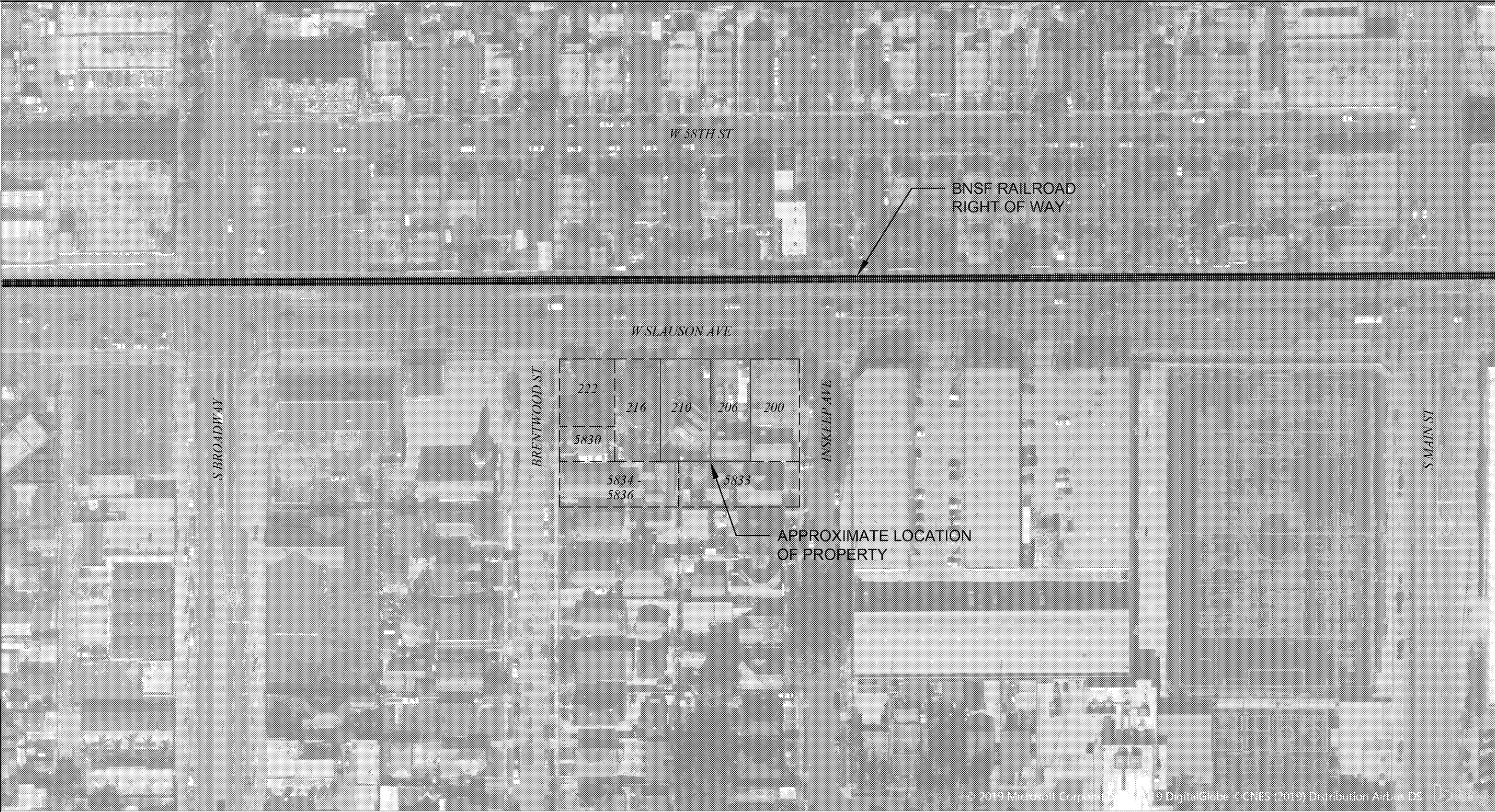
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Fax (714) 494-1912



SITE LOCATION

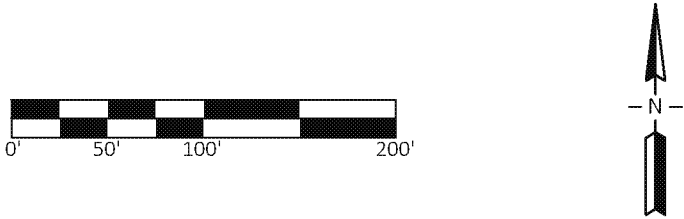
206 and 210 W. Slauson Avenue, Los Angeles, California


Project No.
580101

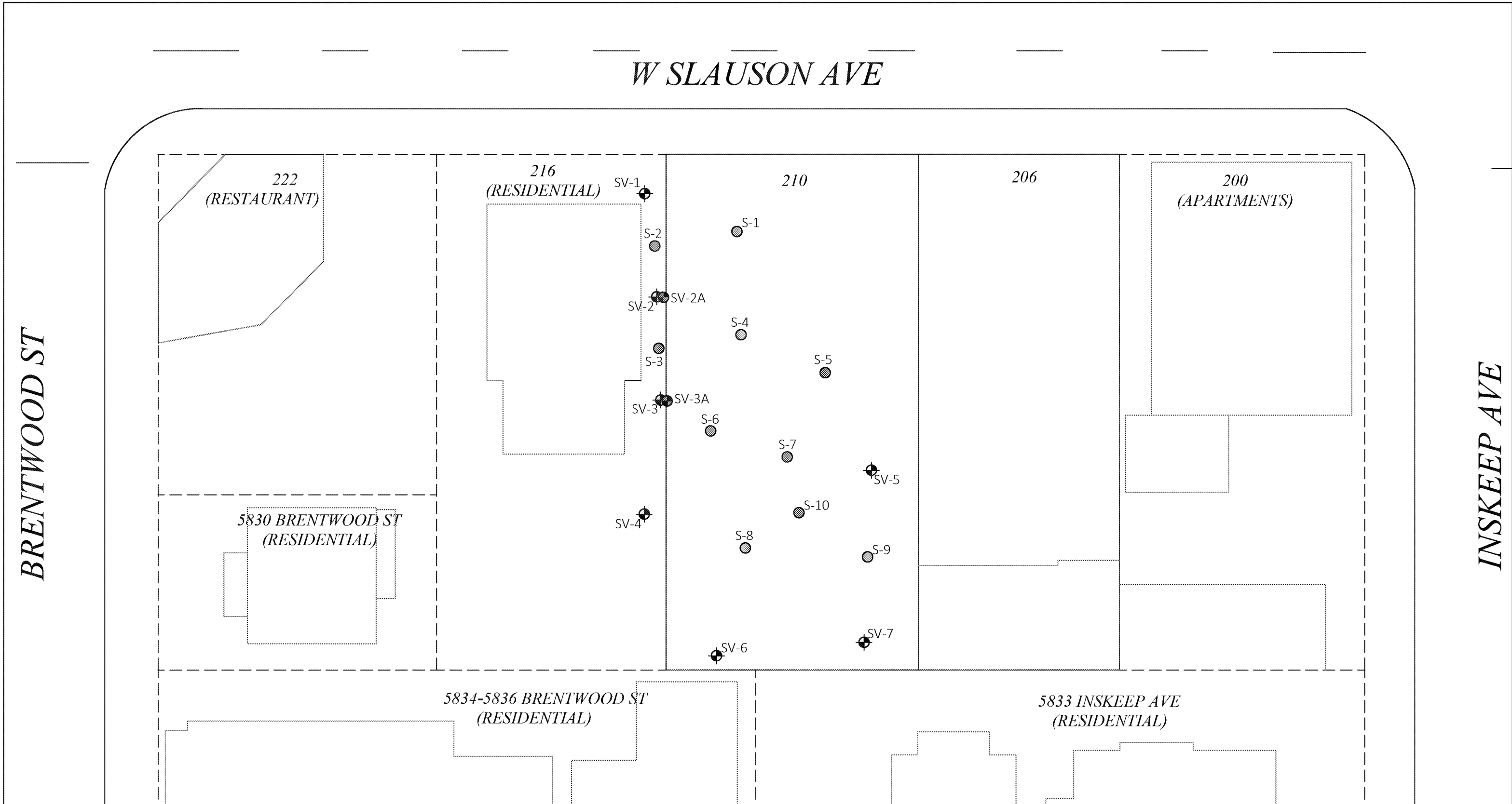
Figure
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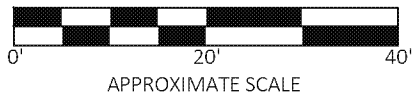
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	APPROXIMATE OFF-SITE PROPERTY BOUNDARY



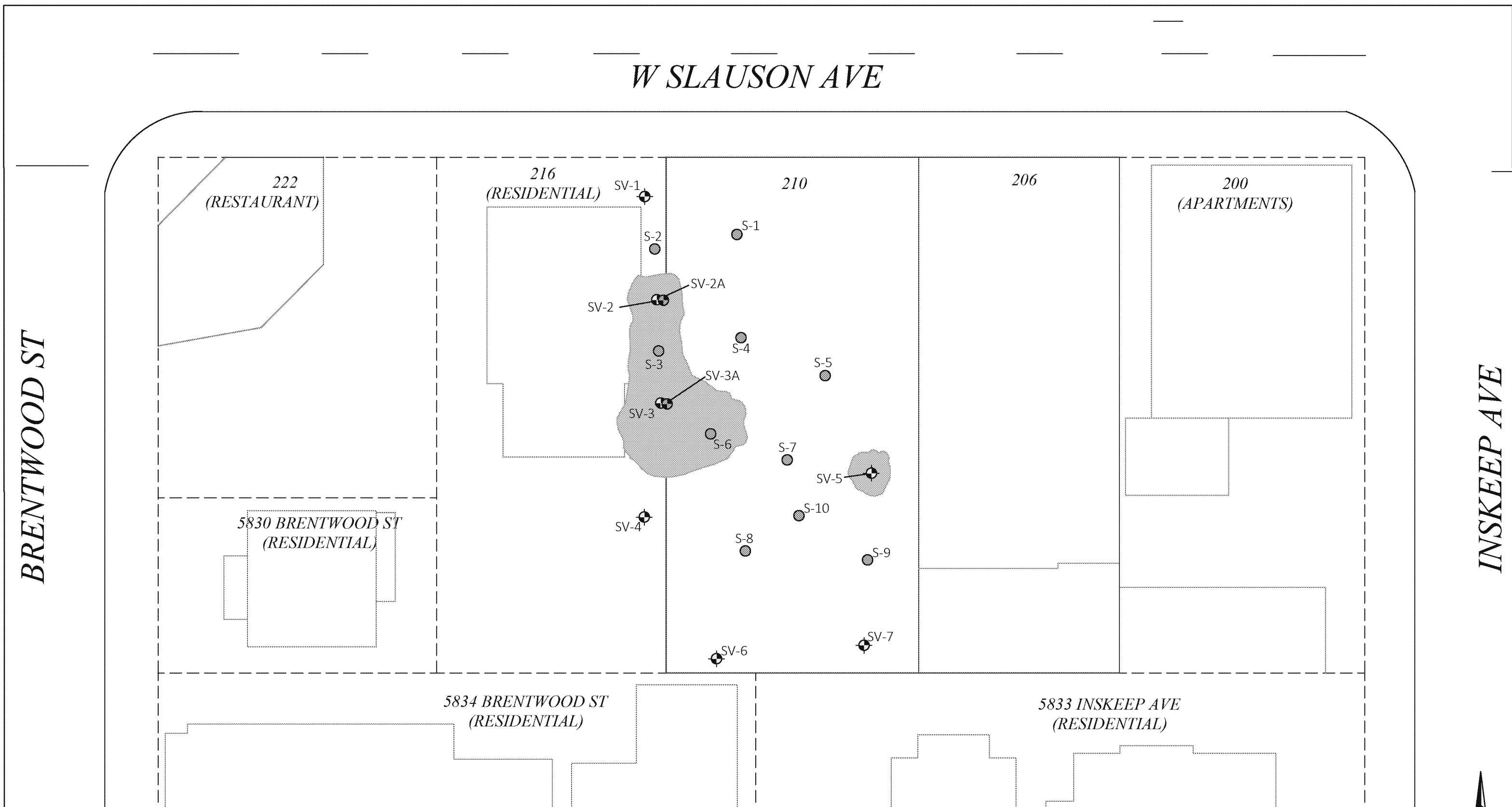
 <div>17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel: (877) 232-4620 Fax: (714) 494-1912</div>	VICINITY MAP		Project No.	Figure
	206 and 210 W. Slauson Avenue, Los Angeles, California		580101	2



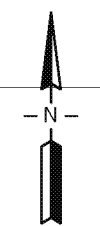
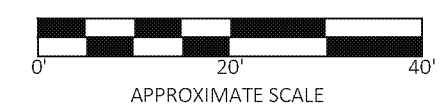
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	APPROXIMATE OFF-SITE PROPERTY BOUNDARY
	APPROXIMATE LOCATION OF BORINGS (15 FEET)
	APPROXIMATE LOCATION OF BORINGS (60 FEET)
	APPROXIMATE LOCATION OF BORINGS (5 FEET)



 17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel: (877) 232-4620 Fax: (714) 494-1912	SOIL AND SOIL VAPOR BORING LOCATIONS		Project No.	Figure
	206 & 210 W. Slauson Avenue, Los Angeles, California		580101	3



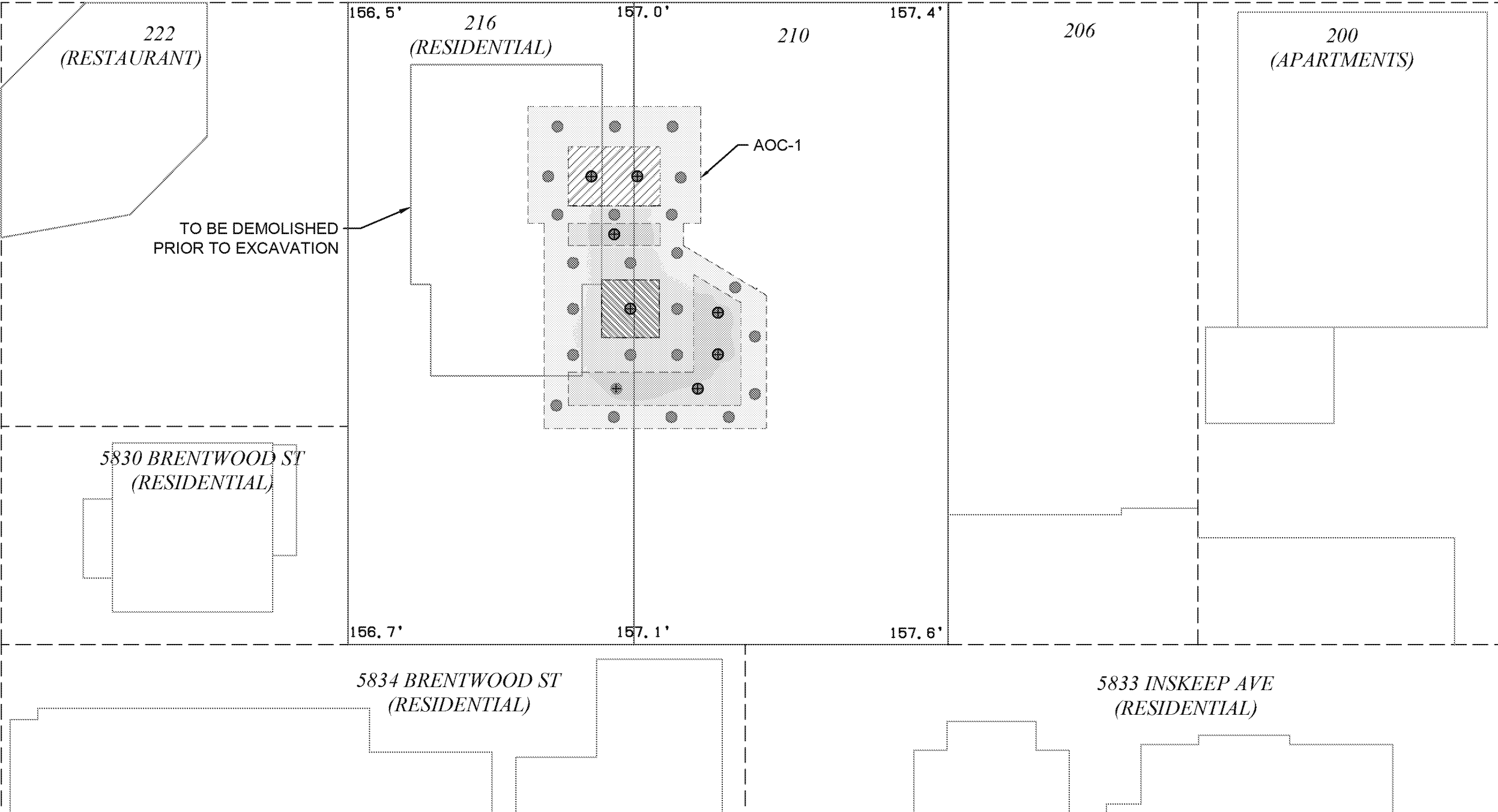
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W SLAUSON AVE

BRENTWOOD ST

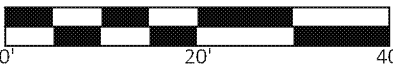
INSKEEP AVE



NOTE: FILL MATERIAL TO EQUAL EXCAVATION POST-COMPACTION

LEGEND

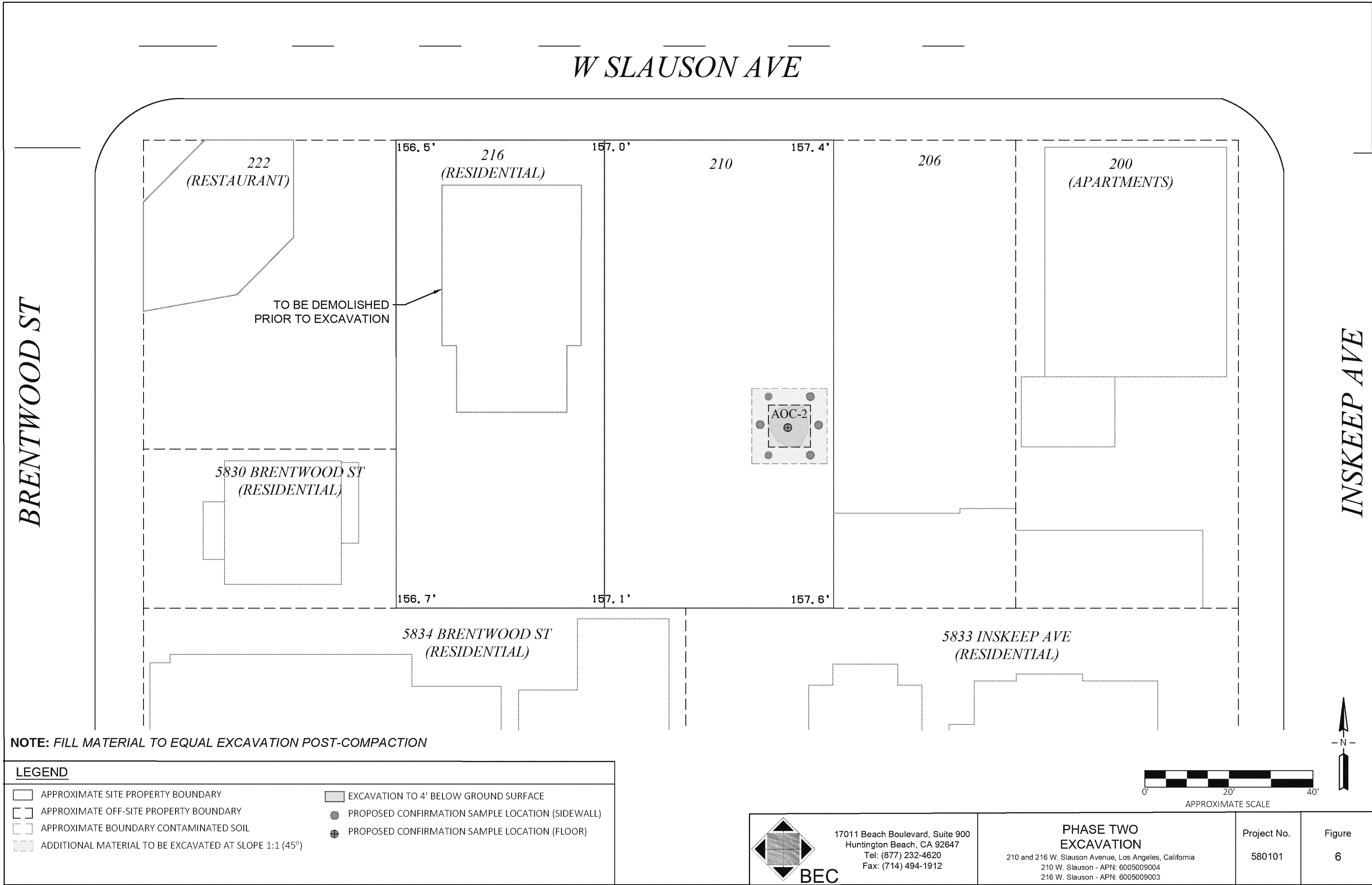
- | | |
|--|--|
| APPROXIMATE SITE PROPERTY BOUNDARY | EXCAVATION TO 4' BELOW GROUND SURFACE |
| APPROXIMATE OFF-SITE PROPERTY BOUNDARY | EXCAVATION TO 7' BELOW GROUND SURFACE |
| APPROXIMATE BOUNDARY CONTAMINATED SOIL | EXCAVATION TO 10' BELOW GROUND SURFACE |
| ADDITIONAL MATERIAL TO BE EXCAVATED AT SLOPE 1:1 (45°) | PROPOSED CONFIRMATION SAMPLE LOCATION (SIDEWALL) |
| | PROPOSED CONFIRMATION SAMPLE LOCATION (FLOOR) |



APPROXIMATE SCALE




 BEC	17011 Beach Boulevard, Suite 900 Huntington Beach, CA 92647 Tel: (877) 232-4620 Fax: (714) 494-1912	PHASE ONE SHALLOW SOIL EXCAVATION AT AOC-1 210 and 216 W. Slauson Avenue, Los Angeles, California 210 W. Slauson - APN: 6005009004 216 W. Slauson - APN: 6005009003	Project No. 580101	Figure 5
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NOTE: FILL MATERIAL TO EQUAL EXCAVATION POST-COMPACTION

LEGEND	
APPROXIMATE SITE PROPERTY BOUNDARY	EXCAVATION TO 4' BELOW GROUND SURFACE
APPROXIMATE OFF-SITE PROPERTY BOUNDARY	PROPOSED CONFIRMATION SAMPLE LOCATION (SIDEWALL)
APPROXIMATE BOUNDARY CONTAMINATED SOIL	PROPOSED CONFIRMATION SAMPLE LOCATION (FLOOR)
ADDITIONAL MATERIAL TO BE EXCAVATED AT SLOPE 1:1 (45°)	



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PHASE TWO
EXCAVATION

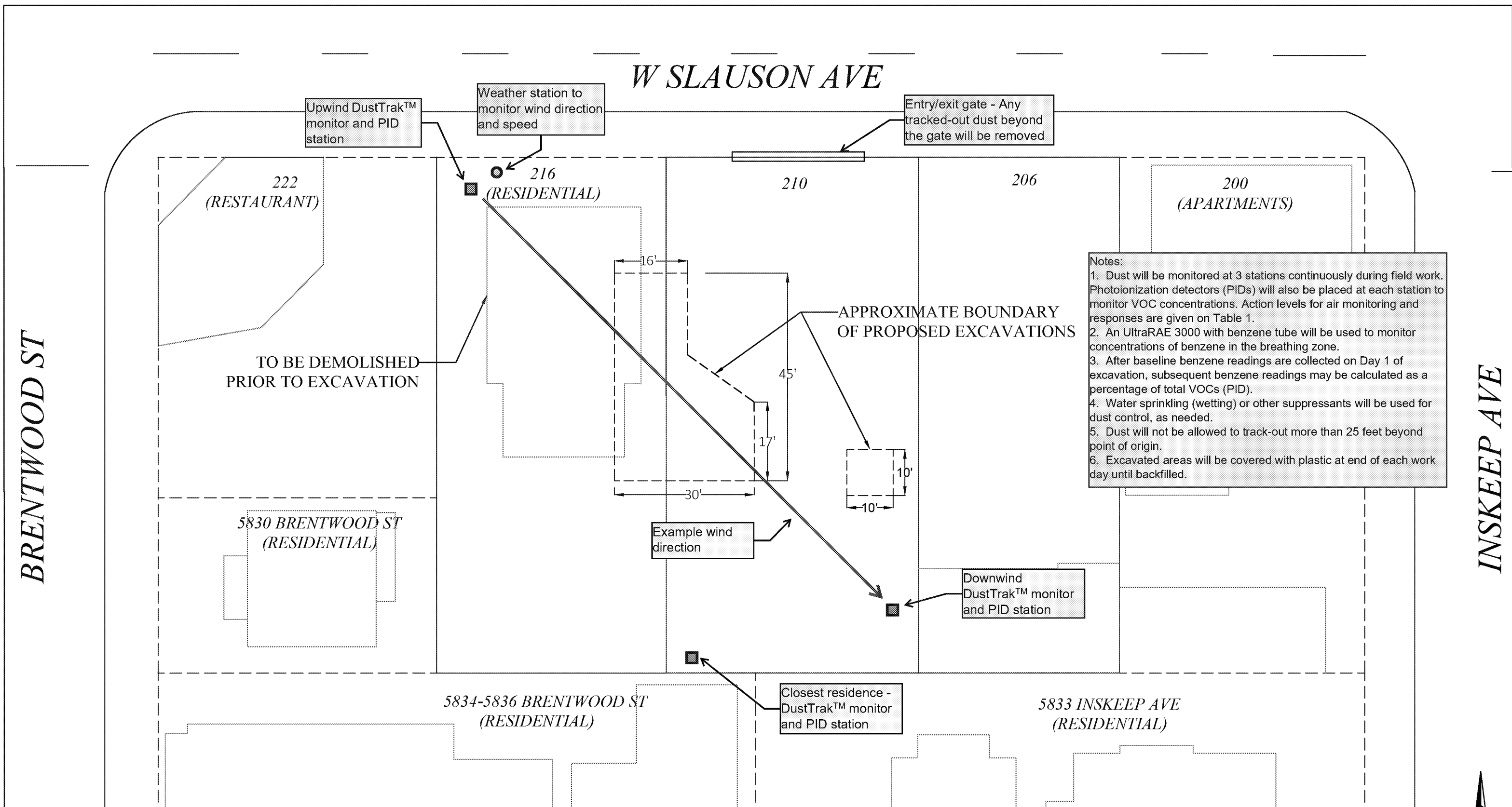
210 and 216 W. Slauson Avenue, Los Angeles, California
210 W. Slauson - APN: 6005009004
216 W. Slauson - APN: 6005009003

Project No.

580101

Figure

6



LEGEND

□ APPROXIMATE SITE PROPERTY BOUNDARY

□ APPROXIMATE OFF-SITE PROPERTY BOUNDARY

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AIR MONITORING AND DUST CONTROL MEASURES

206 and 210 W. Slauson Avenue, Los Angeles, California

Project No.
580101

Figure
7

0' 20' 40'

APPROXIMATE SCALE

N

Approximate location of storm drain - covered with gutter guard and absorbent sock

W SLAUSON AVE

BRENTWOOD ST

INSKEEP AVE

222
(RESTAURANT)

216
(RESIDENTIAL)

210

206

200
(APARTMENTS)

Plastic-lined trench
between fence and
concrete walkway
(approx. 18" W x 12" D)

Double-sandbag layer

TO BE DEMOLISHED
PRIOR TO EXCAVATION

Prior to excavations,
impacted bare dirt areas
will be covered with
plastic.

APPROXIMATE BOUNDARY
OF PROPOSED EXCAVATION

Excavations will be
covered with plastic at
end of each workday.

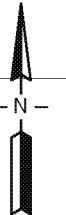
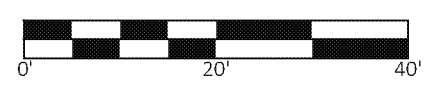
Double-sandbag layer
along gaps in fence
line

If rain event occurs,
stormwater sample will be
taken within excavated area
and analyzed for VOCs and
TPH for off-Site disposal.

5830 BRENTWOOD ST
(RESIDENTIAL)

5834 BRENTWOOD ST
(RESIDENTIAL)

5833 INSKEEP AVE
(RESIDENTIAL)



LEGEND

- APPROXIMATE SITE PROPERTY BOUNDARY
- APPROXIMATE OFF-SITE PROPERTY BOUNDARY



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**BEST MANAGEMENT PRACTICES
(BMPs) FOR STORMWATER**
206 and 210 W. Slauson Avenue, Los Angeles, California

Project No.
580101

Figure
8

Tables

Table 1**Air Monitoring Action Levels - EPA-ERD Monitoring Program****206 and 210 W. Slauson Avenue****Los Angeles, CA**

Category	Parameter	Action Level	Note	Response	Basis
Dust Monitoring	PM ₁₀	50 ug/m ³	From upwind to downwind	Work will be suspended and dust suppression procedures (i.e. wetting or vacuuming) will be performed as necessary until readings are below the relevant threshold.	SCAQMD Rule 403
			From upwind to nearby residences		
Breathing Zone Monitoring	Benzene (UltraRAE and/or PID)	0.1 ppmv	8-hour TWA	Work will be suspended and the affected soil will be sprayed with water. Work will resume when readings are below the relevant threshold.	NIOSH REL for benzene
	Total VOCs (PID)	300 ppmv	8-hour TWA		OSHA PEL for Gasoline

Notes:

PM₁₀ = Particulate Matter 10 (particles 10 micrometers and smaller in size)

VOCs = volatile organic compounds

PID = photoionization detector

ug/m³ = micrograms per cubic meter

ppmv = parts per million by volume

TWA = Time-weighted average

SCAQMD = South Coast Air Quality Monitoring District

NIOSH REL = National Institute for Occupational Safety and Health Recommended Exposure Limit

OSHA PEL = Occupational Safety and Health Administration Permissible Exposure Limit

EPA-ERD = United States Environmental Protection Agency Emergency Response Department

See Section 3.3 for further details on air monitoring procedures and action levels.

Table 2
Air Monitoring Action Levels - SCAQMD Monitoring Program
206 and 210 W. Slauson Avenue
Los Angeles, CA

Category	Parameter	Action Level	Note	Response	Basis
Dust Monitoring	PM ₁₀	50 ug/m ³	From upwind to downwind	Work will be suspended and dust suppression procedures (i.e. wetting or vacuuming) will be performed as necessary until readings are below the relevant threshold.	SCAQMD Rule 403
Excavated Soil Monitoring	Total VOCs (PID)	50 ppmv	Each bucket of excavated soil. 2-3 inches from face of soil.	Work will be suspended and the affected soil will be sprayed with water and either covered/segregated or transported off-Site. Work will resume when PID readings are below 50 ppmv. SCAQMD will be notified within 24 hours.	SCAQMD Rule 1166
		1,000 ppmv		Work will be suspended. The affected soil will be sprayed with water and immediately placed in a sealed bin or transported off-Site within 15 minutes. Work will resume when PID readings are below 50 ppmv. SCAQMD will be notified within 24 hours.	

Notes:

- PM₁₀ = Particulate Matter 10 (particles 10 micrometers and smaller in size)
- VOCs = volatile organic compounds
- PID = photoionization detector
- ug/m³ = micrograms per cubic meter
- ppmv = parts per million by volume
- SCAQMD = South Coast Air Quality Monitoring District
- See Section 3.3 for further details on air monitoring procedures and action levels.